

Ensure that the process colors have the following characteristics when applied according to the manufacturer's instructions:

- Have an appropriate viscosity for the purpose intended.
- Dry to a solid film in 24 hours at 77 °F (22 °C) and 50 percent relative humidity.
- Withstand curing at temperatures up to 150 °F (66 °C) for 4 hours without adverse effect or embrittlement.
- Be removable with a recommended solvent before it thoroughly dries, without damaging the reflective sheeting.

5. Durability

- a. Use weather-resistant colors when processed through a 10XX screen and finished according to the recommended procedures.
- b. After cleaning, ensure that the material meets the following requirements:
  - No appreciable color change
  - No loss by either diffuse or reflected light
  - No significant change in transparency when exposed to accelerated weathering for 100,000 Langleys, facing south, unprotected at 45 degrees in south Florida; or 1,000 hours Atlas Twin Arc Weathering (ASTM G 23, Type D) as per ASTM D 822.
- c. After accelerated exposure, ensure that no process color can be removed when tested by scratching through the surface, applying cellophane tape over the scratched area, and removing the tape with one quick motion.

**B. Fabrication**

1. When using color silk screen paint other than black, thoroughly stir the paste before use and frequently during use. Stir especially when using reverse silk screening.
2. Ensure that the finished silk screen has no streaks. If the paint has streaks, the Engineer or Inspector will reject it.
3. Apply the paste on the silk screen with a rubber squeegee that is as wide as the sign.

**C. Acceptance**

The Engineer will approve the lettering paint based on the results from the color, transparency, viscosity, dry time, and removability tests from submitted paint samples.

**D. Materials Warranty**

Storage and Packaging: Ensure that the material in storage for up to one year does not skin, settle, change color, thicken, or liver so that normal mixing procedures do not return the material to the proper consistency and texture.

## **Section 915—Mast Arm Assemblies**

### **915.1 General Description**

This section includes the requirements for steel posts, arms, and guy wires and cable for mast arm assemblies.

#### **915.1.01 Related References**

**A. Standard Specifications**

Section 106—Control of Materials

**B. Referenced Documents**

ASTM A 53/A 53M

ASTM A 475

Federal Specification FF-T-2765, Type III

QPL 72

## 915.2 Materials

### 915.2.01 Steel Posts and Arms for Mast Arm Assembly

#### A. Requirements

1. Use steel posts and arms of the dimensions shown on the Plans and that meet the requirements of ASTM A 53 for Type E or S, Grade B with a galvanized finish.
2. Use pipe of weight class XS, schedule No. 80. Do not use the hydrostatic test requirements.
3. Submit a certification to the Engineer from the manufacturer that the materials meet the requirements of this section.

#### B. Fabrication

General Provisions 101 through 150.

#### C. Acceptance

The Engineer will accept the material based on the certification, according to Subsection 106.05, “Materials Certification,” and on results of galvanized coating tests made by the Department.

#### D. Materials Warranty

General Provisions 101 through 150.

### 915.2.02 Guy Wires and Cable

#### A. Requirements

1. Use guy wires for mast arm assemblies and cable for overhead sign assemblies of the dimensions shown on the Plans and that meet the requirements of ASTM A 475, Siemens-Martin Grade, with Class A coating.
2. Provide extra heavy wire rope thimbles that meet Federal Specification FF-T-2765, Type III for each end of the cable.
3. Submit a certificate from the manufacturer according to Subsection 106.05, “Materials Certification.”  
For a list of sources, see QPL 72.

#### B. Fabrication

General Provisions 101 through 150.

#### C. Acceptance

The Engineer will accept the material based on the certificate.

#### D. Materials Warranty

General Provisions 101 through 150.

## Section 916—Delineators

### 916.1 General Description

This section includes the requirements for center mount reflector delineators.

#### 916.1.01 Related References

##### A. Standard Specifications

General Provisions 101 through 150.

##### B. Referenced Documents

General Provisions 101 through 150.

### 916.2 Materials

Definitions for Optical Requirements: Use the following definitions in this Specification:

1. Entrance Angle  
The angle at reflector between direction of light incident on it and direction of reflector axis.